

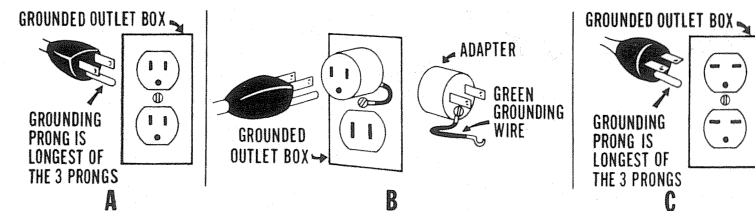


# Black & Decker

## OWNER'S MANUAL

### Grounding

Your Drill has a grounding system to protect you from electric shock if some damage should occur to the wiring of the tool. This system utilizes the Drill's approved 3-conductor power cord and 3-prong grounding type attachment plug, which should be used with the proper grounding type receptacle, in accordance with the National Electric Code, Canadian Electrical Code, and Underwriters' Laboratories specifications.



If your unit requires less than 150 volts it has a plug that looks like Fig. "A". It will fit directly into the proper type of 3-wire grounding receptacle. The unit is then grounded automatically each time it is plugged in.

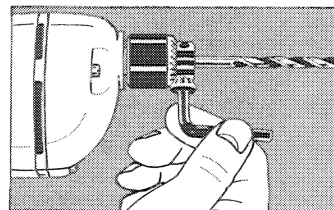
Shown in Fig. "B" is a special grounding adapter (not allowed in Canada by the Canadian Electrical Code) which is available from your dealer and will permit using a 2-wire receptacle. The green grounding wire extending from the side of the adapter must be connected to a Permanent Ground.

If the unit requires from 150 to 250 volts, it has a plug like Fig. "C". No adapter is available and the plug must be used in the proper 3-wire grounding receptacle.

We recommend that you NEVER disassemble the tool or try to do any rewiring in the electrical system. Any such repairs should be performed only by B&D Service Centers or other qualified service organizations. Should you be determined to make a repair yourself, remember that the green colored wire is the "grounding" wire. Never connect this green wire to a "live" terminal. If you replace the plug on the power cord, be sure to connect the green wire only to the grounding (longest) prong on a 3-prong plug.

If you use an extension cord, be sure that it is a 3-conductor, grounding type cord. Grounding must be continuous from the tool plug to the grounded receptacle.

### Chuck (Unplug Drill)



Turn collar to open chuck jaws. Place bit in chuck so that end rests on chuck bottom. Tighten chuck collar by hand. Place chuck key in each of the three holes, and tighten in clockwise direction. It's important to tighten chuck with all three holes. To release bit, turn chuck key counter-clockwise in just one hole, then loosen chuck by hand.

To remove the chuck from the Drill, for using a threaded shank accessory or for chuck replacement, first unplug the tool. Open the chuck and remove screw in bottom of chuck (left hand thread). Insert the key in the chuck and tap it sharply in the direction the tool normally rotates — see at left. This will loosen the chuck shank threads and the chuck may be unscrewed by hand.

### EXTENSION CORD

When using this drill at a considerable distance from power source, an extension cord of adequate size must be used for safety, and to prevent loss of power and over-heating. For a 120-volt tool, the minimum size of the wires in any extension cord up to 75 feet long must be 18-gauge (American Wire Gauge). From 75 to 100 feet, 16-gauge wire is required throughout the extension. 220-volt tools require a minimum wire size of only 18-gauge in extension cord lengths up to 100 feet long. (NOTE: 16-gauge wire is heavier than 18-gauge wire and will carry current for longer distances without a voltage drop.)

Before using Extension Cords, inspect them for loose or exposed wires and damaged insulation. Make any needed repairs or replacement before using your power tool.

### MAINTENANCE

#### LUBRICATION

Self lubricating bearings are used in the tool and periodic relubrication is not required. However, it is recommended that, once a year, you take or send the tool to a B&D Service Center for a thorough cleaning, inspection and lubrication of the gear case.

#### IMPORTANT

To assure product SAFETY and RELIABILITY, repairs, maintenance and adjustment should be performed by BLACK & DECKER Service Centers or other qualified service organizations, always using Black & Decker replacement parts.

#### GUARANTEE

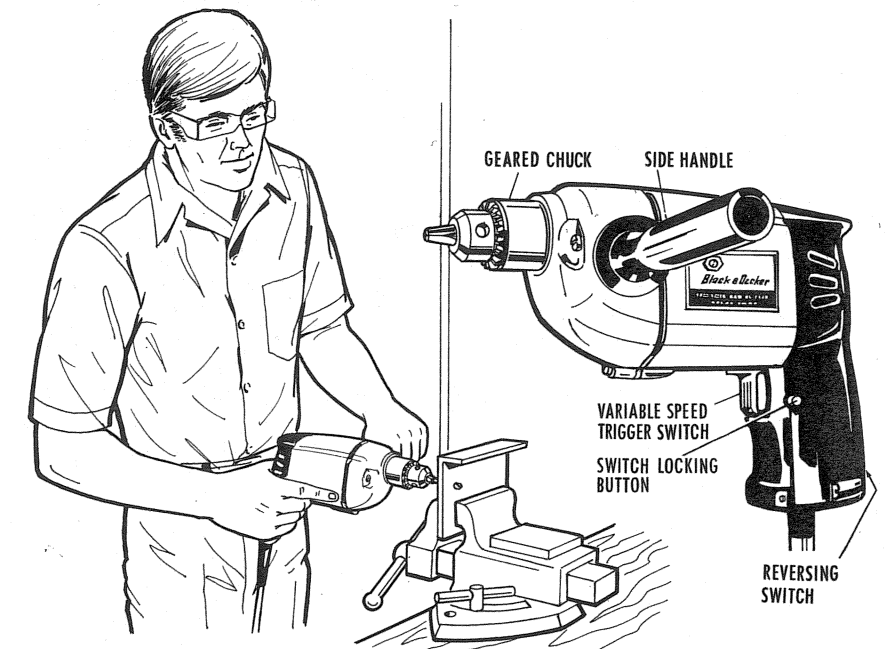
Black & Decker guarantees, for one year from date of purchase, to correct by repair or parts replacement without charge any defect due to faulty material or workmanship. Simply return the complete unit, transportation prepaid, to any Black & Decker Service Center or Authorized Service Station. Naturally, we assume no responsibility for damage caused by misuse, careless handling or where repairs have been made or attempted by others. No other guarantee, written or verbal, are authorized by us.



THE BLACK & DECKER MFG. CO.  
Towson, Md. 21204, U.S.A.

Form No. 97414

(C7-AL) Printed in U.S.A.



You can drill holes up to 1/2" in steel, 1/2" in masonry, and 1" in wood with this new Drill. You can use Hole Saws up to 2 1/2" in diameter for cutting holes in wood or composition boards up to 3/4" thick. All this power and performance comes to you in a Drill with the compactness and light weight of many less powerful 1/4" Drills.

Because of its high torque, or twisting power, it is strongly recommended that you hold the Drill with both hands whenever possible. Please read all of the safety rules and instructions carefully, and don't forget to send in your guarantee registration card.

THANK YOU for buying BLACK & DECKER!



### 1/2" VARIABLE SPEED REVERSING DRILL

Capacity: 1/2" dia. holes in steel; 1" dia. in hardwood. 120 Volts A.C. 3.0 Amps. 0 to 550 R.P.M.



## IMPORTANT INFORMATION

### SAFETY RULES FOR POWER TOOLS

The use of the Safety Seal of the Power Tool Institute assures you that this tool is produced and tested in accordance with applicable national safety standards. Operational safety, however, depends to a great extent upon the user of the tool. Please pay close attention to the following rules.

1. **KNOW YOUR POWER TOOL** — Read owner's manual carefully. Learn its applications and limitations as well as the specific potential hazards peculiar to this tool.
2. **GROUND ALL TOOLS — UNLESS DOUBLE-INSULATED.** If tool is equipped with three-prong plug, it should be plugged into a three-hole electrical receptacle. If adapter is used to accommodate two-prong receptacle, the adapter wire must be attached to a **known ground.** Never remove third prong.
3. **KEEP GUARDS IN PLACE** and in working order.
4. **KEEP WORK AREA CLEAN.** Cluttered areas and benches invite accidents.
5. **AVOID DANGEROUS ENVIRONMENT.** Don't use power tool in damp or wet locations. And keep work area well lit.
6. **KEEP CHILDREN AWAY.** All visitors should be kept safe distance from work area.
7. **STORE IDLE TOOLS.** When not in use, tools should be stored in dry, high or locked-up place — out of reach of children.
8. **DON'T FORCE TOOL.** It will do the job better and safer at the rate for which it was designed.
9. **USE RIGHT TOOL.** Don't force small tool or attachment to do the job of a heavy duty tool.
10. **WEAR PROPER APPAREL.** No loose clothing or jewelry to get caught in moving parts. Rubber gloves and footwear are recommended when working outdoors.
11. **USE SAFETY GLASSES** with most tools. Also face or dust mask if cutting operation is dusty.
12. **DON'T ABUSE CORD.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil and sharp edges.
13. **SECURE WORK.** Use clamps or a vise to hold work. It's safer than using your hand and it frees both hands to operate tool.
14. **DON'T OVERREACH.** Keep proper footing and balance at all times.
15. **MAINTAIN TOOLS WITH CARE.** Keep tools sharp at all times, and clean for best and safest performance. Follow instructions for lubricating and changing accessories.
16. **DISCONNECT TOOLS.** When not in use, before servicing; when changing accessories such as blades, bits, cutters, etc.
17. **REMOVE ADJUSTING KEYS AND WRENCHES.** Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
18. **AVOID ACCIDENTAL STARTING.** Don't carry plugged-in tool with finger on switch.

### SIDE HANDLE

With the Drill unplugged, screw the side handle firmly into the threaded hole in the side of the Drill. Because of the Drill's high torque, or twisting power, hold it with both hands whenever possible.

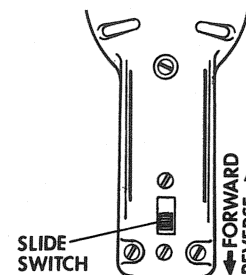
### SWITCHES

The Variable Speed Trigger Switch permits "FREE HAND" speed control — the farther the trigger is depressed, the higher the speed of the Drill. A Switch Locking Button permits locking the trigger in the full "ON" position for continuous operation. To lock the trigger "ON" depress trigger fully and push in locking button, then gently release trigger. To release locking mechanism, depress trigger fully, then release it. Trigger can also be locked "ON" in a position which gives less than full speed. Do not lock trigger "ON" for hand-held drilling, so that you can release trigger instantly if bit binds in hole.

**NOTE:** Use lower speeds for STARTING HOLES WITHOUT A CENTER PUNCH, DRILLING IN METAL OR PLASTICS, DRIVING OR REMOVING SCREWS, DRILLING CERAMICS, OR MIXING PAINT. Higher speeds are better for DRILLING WOODS AND COMPOSITION BOARDS, AND FOR USING ABRASIVE AND POLISHING ACCESSORIES.

The Reversing Switch is a slide switch located in the back of the handle (See at right). For removing screws or easing drill bits out of tight holes, release the trigger switch **FIRST** and then push the slide switch up to reverse the drill motor. After any reversing operations, return switch to forward position. Do not operate reversing switch while unit is running. Do not run the Drill continuously in Reverse — cooling fan functions most efficiently in Forward.

It is possible that the slide switch will be in between the forward or reverse position. In this case, the unit will not operate. Simply push the slide switch fully to either the forward or reverse position and the unit will operate when trigger is depressed.



### CAUTION

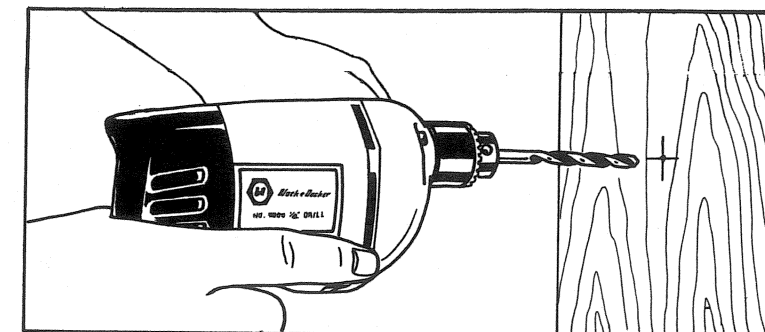
Be sure to release the switch locking button before disconnecting the plug from the power supply. Failure to do so will cause the tool to start immediately the next time it is plugged in. Damage or injury could occur.

### ACCESSORIES

Recommended accessories for use with your Drill are listed below and in Black & Decker catalogs (CAUTION: The use of any other accessories might be hazardous). For safety in use, the following accessories should be used only in the sizes specified below:

- BITS, METAL DRILLING — Up to 1/2" diameter.
- BITS, MASONRY DRILLING — Up to 1/2".
- BITS, WOOD DRILLING — Up to 1" diameter.
- HOLE SAWS — Up to 2 1/2" diameter.

## OPERATION



### DRILLING

1. Always unplug the Drill when attaching or changing bits or accessories.
2. Use sharp drill bits only. For WOOD, use twist drill bits, spade bits, power auger bits, or hole saws. For METAL, use high-speed steel twist drill bits or hole saws. For MASONRY, such as brick, cement, cinder block, etc., use carbide-tipped bits.
3. Be sure the material to be drilled is anchored or clamped firmly. If drilling thin material, use a wood "back-up" block to prevent damage to the material.
4. Center-punch an indentation at the point to be drilled. This will overcome the tendency of the bit to slip around on a smooth surface. Place the tip of the bit in the indentation and turn motor "ON".
5. Always apply pressure in a straight line with the bit. Use enough pressure to keep drill biting, but do not push hard enough to stall the motor or deflect the bit.
6. Hold drill firmly with both hands, using the side handle to help control the twisting action of the drill.
7. IF DRILL STALLS, it is usually because it is being overloaded or improperly used. **RELEASE TRIGGER IMMEDIATELY,** remove drill bit from work, and determine cause of stalling. **DO NOT CLICK TRIGGER OFF AND ON IN AN ATTEMPT TO START A STALLED DRILL — THIS CAN DAMAGE THE DRILL.**
8. To minimize stalling on breaking through the material, reduce pressure on drill and ease the bit through the last fractional part of the hole.
9. Keep the motor running when pulling the bit back out of a drilled hole. This will help prevent jamming.

### DRILLING IN METAL

Use a cutting lubricant when drilling metals. The exceptions are cast iron and brass which should be drilled dry. The cutting lubricants that work best are sulphurized cutting oil or lard oil; bacon grease will also serve the purpose. Aluminum is best drilled with kerosene.

### DRILLING IN WOOD

Holes in wood can be made with the same twist drills used for metal. These bits may overheat unless pulled out frequently to clear chips from the flutes. For larger holes, use Power Drill Wood Bits. Work that is apt to splinter should be backed up with a block of wood.